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Dated: December 24, 2003 Signature: *Lawrence E. Russ*

(Lawrence E. Russ)

Docket No.: EMCORE 3.0-081
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Guo et al.

Application No.: 10/721,488

Group Art Unit: N/A

Filed: November 25, 2003

Examiner: Not Yet Assigned

For: GALLIUM NITRIDE-BASED DEVICES AND
MANUFACTURING PROCESS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

It is respectfully requested that the references listed on the enclosed form be made of record and considered with respect to the above-referenced U.S. patent application. A copy of each non-U.S. patent reference is enclosed. Submission of the present Information Disclosure Statement should not be taken as an admission that the cited references are legally available prior art or that the same are pertinent or material.

In the event that any fee is due in connection with the present Information Disclosure Statement, the Commissioner is hereby authorized to charge the same to our Deposit Account No. 12-1095.

Dated: December 24, 2003

Respectfully submitted,

By *Lawrence E. Russ*

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Substitute for form 1449A/B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete if Known	
				Application Number	10/721,488
				Filing Date	November 25, 2003
				First Named Inventor	Shiping Guo
				Art Unit	N/A
				Examiner Name	Not Yet Assigned
Sheet	1	of	2	Attorney Docket Number	EMCORE 3.0-081

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	AA	US-2003/0015708-A1	01-23-2003	Parikh, et al.	
	AB	US-2003/0062525-A1	04-03-2003	Parikh, et al.	
	AC	US-2003/0075728-A1	04-24-2003	Tooi, et al.	
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Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
	BA	-WO 02/48434 A2	06-20-2002	Nitronex Corporation		
	BB	-DE 4210402	10-01-1992	Koichi		
	BC	-EP 0 380 340	04-29-1992	Cree Research Inc.		

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NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	CA	Brown, et al., "AlGaIn/GaN HFETs Fabricated on 100-mm GaN on Silicon (111) Substrates," Solid-State Electronics, Vol. 46, pp. 1535-1539 (2002)	
	CB	Felton, et al., "Stress Control in GaN Grown on Silicon (111) by Metalorganic Vapor Phase Epitaxy," Applied Physics Letters, Vol. 79, No. 20, pp. 3230-3232 (November 12, 2001)	
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	CD	Armitage, et al., "Lattice-Matched HfN Buffer Layers for Epitaxy of GaN on Si," Applied	

Examiner Signature		Date Considered	
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PTO/SB/08a/b (08-03)

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		Physics Letters, Vol. 81, No. 8, pp. 1450-1452 (August 15, 2002)	
	CE	Manohar, et al., "Characteristics of Microwave Power GaN HEMTs on 4-inch Si Wafers," 2002 IEEE International Microwave Symposium, Seattle WA	
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	CH	Poschenrieder, et al., "Bright Blue to Orange Photoluminescence Emission from High-Quality InGaIn/GaN Multiple-Quantum-Wells on Si(111) Substrates," Applied Physics Letters, Vol. 81, No. 9, pp. 1591-1593 (August 26, 2002)	
	CI	Jang, et al., "Characteristics of GaN/Si(111) Epitaxy Grown Using Al _{0.1} Ga _{0.9} N/AlN Composite Nucleation Layers Having Different Thicknesses of AlN," Journal of Crystal Growth, Vol. 241, pp. 289-296 (2002)	
	CJ	Wan, et al., "Growth of Crack-Free Hexagonal GaN Films on Si(100)," Applied Physics Letters, Vol. 79, No. 10, pp. 1459-1461 (September 3, 2001)	
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	CL	Dadgar, et al., "Thick, Crack-Free Blue Light-Emitting Diodes on Si(111) Using Low-Temperature AlN Interlayers and <i>In Situ</i> Si _x N _y Masking," Applied Physics Letters, Vol. 80, No. 20, pp. 3670-3672 (May 20, 2002)	

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